



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,079	03/30/2001	Errol C. Heiman	STL9524	6981

7590 01/17/2003
Kirk Cesari, Seagate Technology LLC
Intellectual Property Department
1280 Disc Drive
Shakopee, MN 55379

EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
----------	--------------

2171

DATE MAILED: 01/17/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.
09/823,079

Applicant

Heiman et al

Examiner
Etienne P LeRoux

Art Unit
2171



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 20, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 9 6) ☐ Other:

Art Unit: 2171

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 8-10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnoldi (USPAT 3,979,672).

With respect to claim 1, Arnoldi discloses (a) applying a nominal voltage to an electronic component [Fig 1, 10], (b) introducing a voltage disruption to the nominal voltage [Fig 1, 30 and claim 1], (c) repeating the voltage disruption for a specified number of instances [Fig 1, 30 and claim 1].

With respect to claims 2 and 9, Arnoldi discloses wherein a voltage disruption comprises applying an increase in voltage [col 2, lines 5-10, col 6, line 57 through col 7, line 11].

With respect to claims 3 and 10, Arnoldi discloses a voltage disruption comprising a decrease in voltage [col 2, lines 44-53]

With respect to claim 8, a connector from the circuitry to a device is inherent in Fig. 1

Art Unit: 2171

With respect to claim 17, Arnoldi discloses a means for generating a voltage disturbance
[[Fig 1, 30]

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnoldi (USPAT 3,979,672) as applied to claims 1 and 8 above.

With respect to claim 11, Arnoldi discloses the claimed invention except for wherein there are multiple power sources that comprise multiple voltage magnitudes. It would have been obvious at the time the invention was made to modify Arnoldi to include wherein there are multiple power sources that comprise multiple voltage magnitudes since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With respect to claim 12, Arnoldi discloses both a decrease [col 2, lines 44-53] and an increase [col 2, lines 5-10, col 6, line 57 through col 7, line 11] in voltage

Art Unit: 2171

With respect to claim 13, Arnoldi discloses the essential elements of the claimed invention except for wherein there are two connectors linked from the circuitry to two separate devices, one connector configured for the voltage disturbances that are due to an increase in voltage and the other connector configured for the voltage disturbances that are due to a decrease in voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Arnoldi to include two connectors linked from the circuitry to two separate devices, one connector configured for the voltage disturbances that are due to an increase in voltage and the other connector configured for the voltage disturbances that are due to a decrease in voltage since it has been held to be within the general skill of a worker in the art to make the connectors separable on the basis of its suitability for the intended use as a matter of obvious design choice. *Nerwin v. Erlichman*, 168 USPQ 177.

With respect to claim 14, Arnoldi discloses a computer to specify certain operating parameters [Fig 1, 36]

Claims 4, 6, 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnoldi (USPAT 3,979,672) as applied to claims 1, 11 above, in view of Sarles et al (USPAT 6,359,426).

With respect to claims 4, 6 and 15, Arnoldi discloses the essential elements of the claimed invention except for applying a sequence of voltages during power-on, wherein a second voltage is activated in a specific time after a first voltage was activated. Sarles discloses

Art Unit: 2171

applying a sequence of voltages during power-on, wherein a second voltage is activated in a specific time after a first voltage was activated [Fig 7]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Arnoldi to include applying a sequence of voltages during power-on, wherein a second voltage is activated in a specific time after a first voltage was activated as taught by Sarles for the purpose of not stressing the DUT during start-up.

With respect to claim 7, Sarles discloses computer software controls [Fig 7].

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnoldi (USPAT 3,979,672) as applied to claims 1, 11 above, in view of Nakagawa (USPAT 4,328,570).

With respect to claims 5 and 16, Arnoldi discloses the essential elements of the claimed invention except for wherein step (d) comprises applying a sequence of voltages during power-off, wherein a second voltage is deactivated a specific amount of time after a first voltage was deactivated. Nakagawa discloses applying a sequence of voltages during power-off, wherein a second voltage is deactivated a specific amount of time after a first voltage was deactivated [Fig 2A]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Arnoldi to include wherein step (d) comprises applying a sequence of voltages during power-off, wherein a second voltage is deactivated a specific amount of time after a first voltage was deactivated as taught by Nakagawa for the purpose of providing a controlled shut-down.

Art Unit: 2171

Response to Arguments

4. Applicant's arguments filed 12/20/2002, have been fully considered but they are not persuasive.

Applicant states on page 4, "Arnoldi does not describe introducing a voltage disruption."

Examiner is not persuaded. Arnoldi discloses, column 9, lines 31-45, the following:

means, after each application of a current to said series circuit, for concurrently interrupting the flow of said current and changing the bias applied to said control electrode from a forward to a reverse bias; means responsive to the voltage across said energy storage means when said current is interrupted for providing a low impedance path across said series circuit in a direction to permit current flow from said energy storage means through said conduction path and said low impedance path back to said energy storage means; and means for indicating a rapid decrease in the voltage between the collector and emitter electrodes of said transistor while said reverse bias is present."

Examiner maintains the above clearly reads on applicant's claim 1 limitation *introducing a voltage disruption to the nominal voltage*.

Applicant states on page 5, "Arnoldi does not describe repeating voltage disruption either as described in the amended claims." Examiner is not persuaded. Arnoldi discloses, column 9, lines 31-35, the following:

means, after each application of a current to said series circuit, for concurrently interrupting the flow of said current and changing the bias applied to said control electrode from a forward to a reverse bias;

Art Unit: 2171

Examiner maintains the above clearly reads on applicant's claim 1, repeating the voltage *disruption for a specified number of instances.*

Applicant states on page 6, "Claims 4-7 and 11-16 are dependent claims which ultimately depend from claim 1 or claim 8, both of which are believed to be patentable over the prior art of record for the reasons discussed hereinabove." Examiner is not persuaded. As presented above, examiner is not persuaded by Applicant's arguments regarding the patentability of claims 1 and 8 and therefore, dependent claims 4-7 and 11-16 are rejected over the prior art of record and as being dependent on a rejected base claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

Art Unit: 2171

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne (Steve) LeRoux whose telephone number is (703) 305-0620.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached at (703) 308-1436.

Any inquiry of a general nature relating to the status of this application or processing procedure should be directed to the receptionist whose telephone number is (703) 305-3900.

Etienne LeRoux

January 14, 2003



SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100